

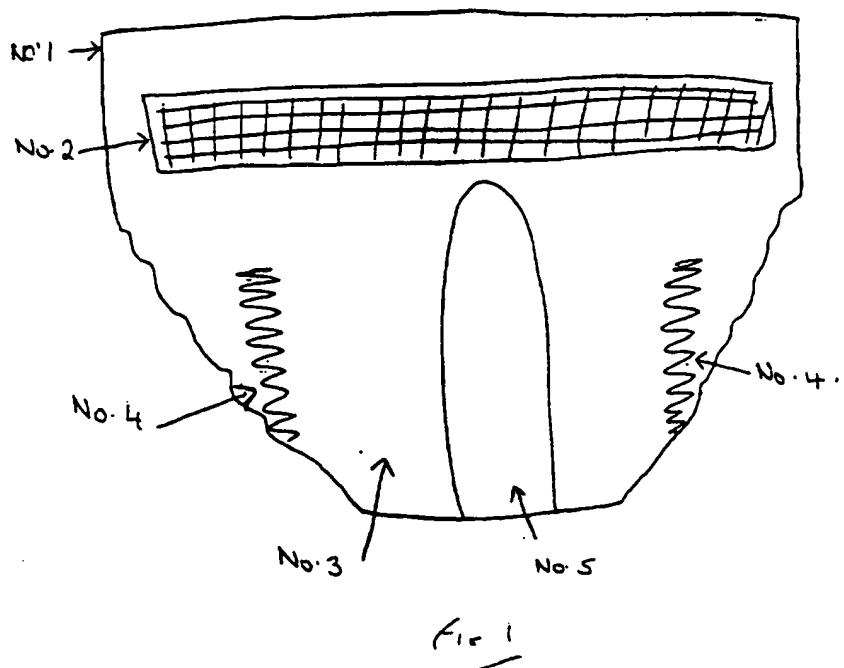
(12) UK Patent Application (19) GB (11) 2 336 112 (13) A

(43) Date of A Publication 13.10.1999

(21) Application No 9807377.8	(51) INT CL ⁶ A61F 13/42
(22) Date of Filing 06.04.1998	(52) UK CL (Edition Q) ASR RPV
(71) Applicant(s) Meera Rajesh Shah 18 The Close, Lyon Park Avenue, WEMBLEY, Middlesex, HA0 4DW, United Kingdom	(56) Documents Cited GB 2183160 A US 4931051 A US 4738674 A US 4507121 A US 4327731 A US 3952746 A US 3918454 A
(72) Inventor(s) Meera Rajesh Shah	(58) Field of Search UK CL (Edition P) ASR RPV INT CL ⁶ A61F 13/42
(74) Agent and/or Address for Service Meera Rajesh Shah 18 The Close, Lyon Park Avenue, WEMBLEY, Middlesex, HA0 4DW, United Kingdom	

(54) Abstract Title.
Disposable nappy with wetness indicator

(57) The nappy includes a centrally located strip of moisture-sensitive paper 5 which, in contact with urine, gradually darkens to provide an external visual indication of the extent of saturation of the nappy - the darker the strip, the wetter the nappy.



GB 2 336 112 A

BEST AVAILABLE COPY

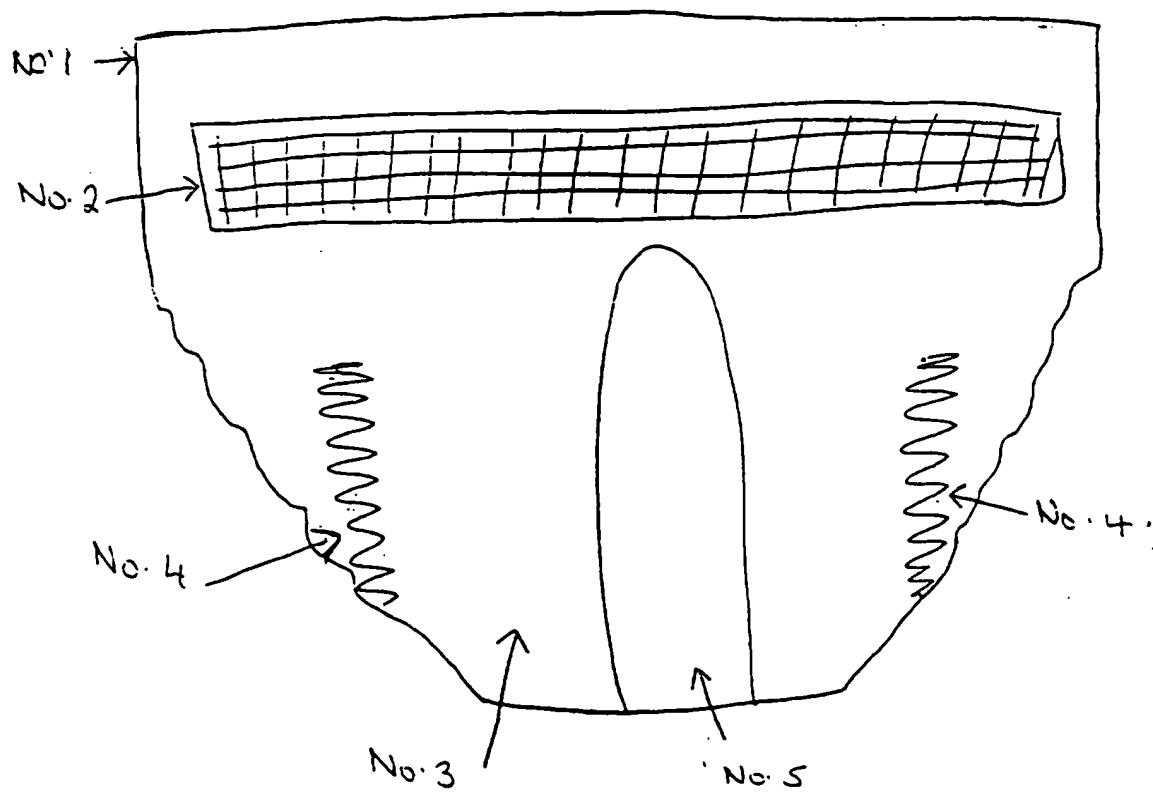
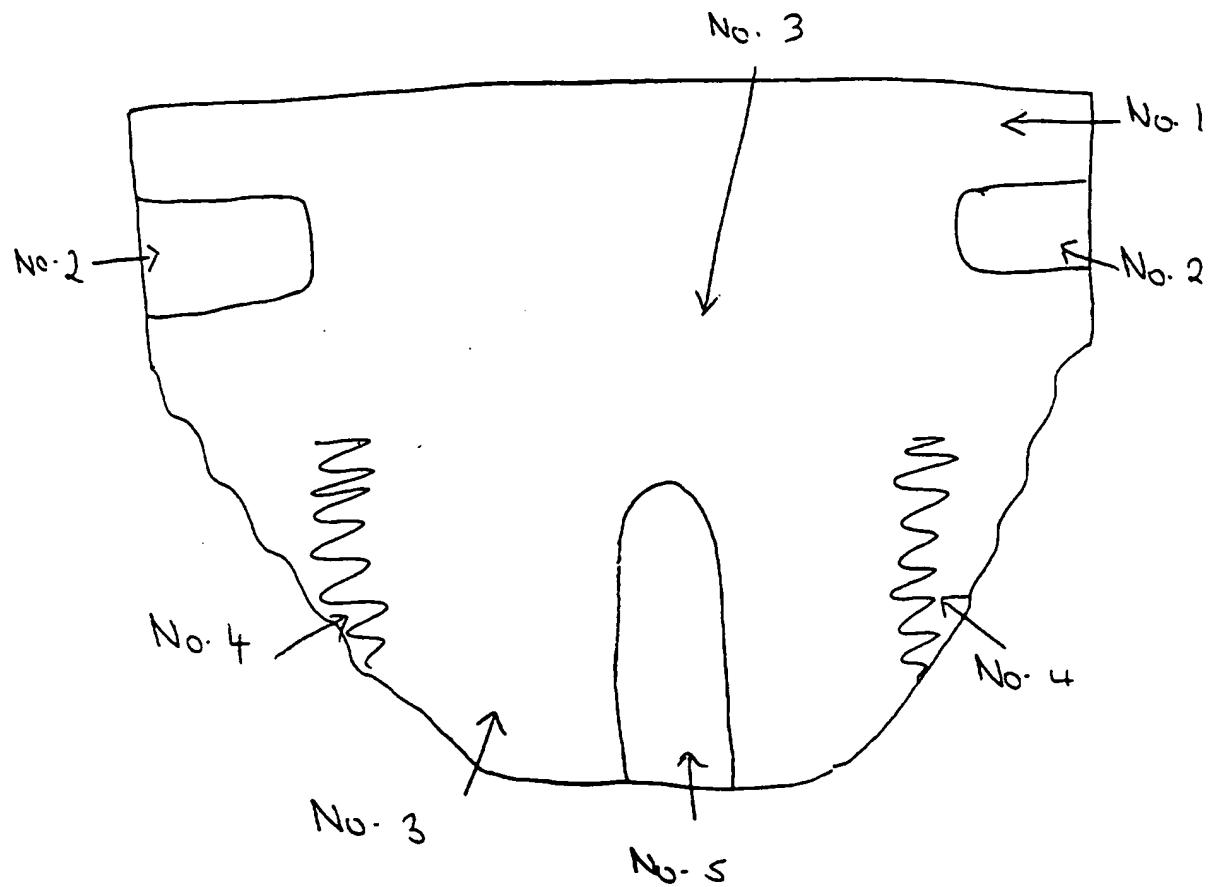
DRAWINGS [FRONT OF REVEAL STRIP DISPOSABLE NAPPY]

Fig 1

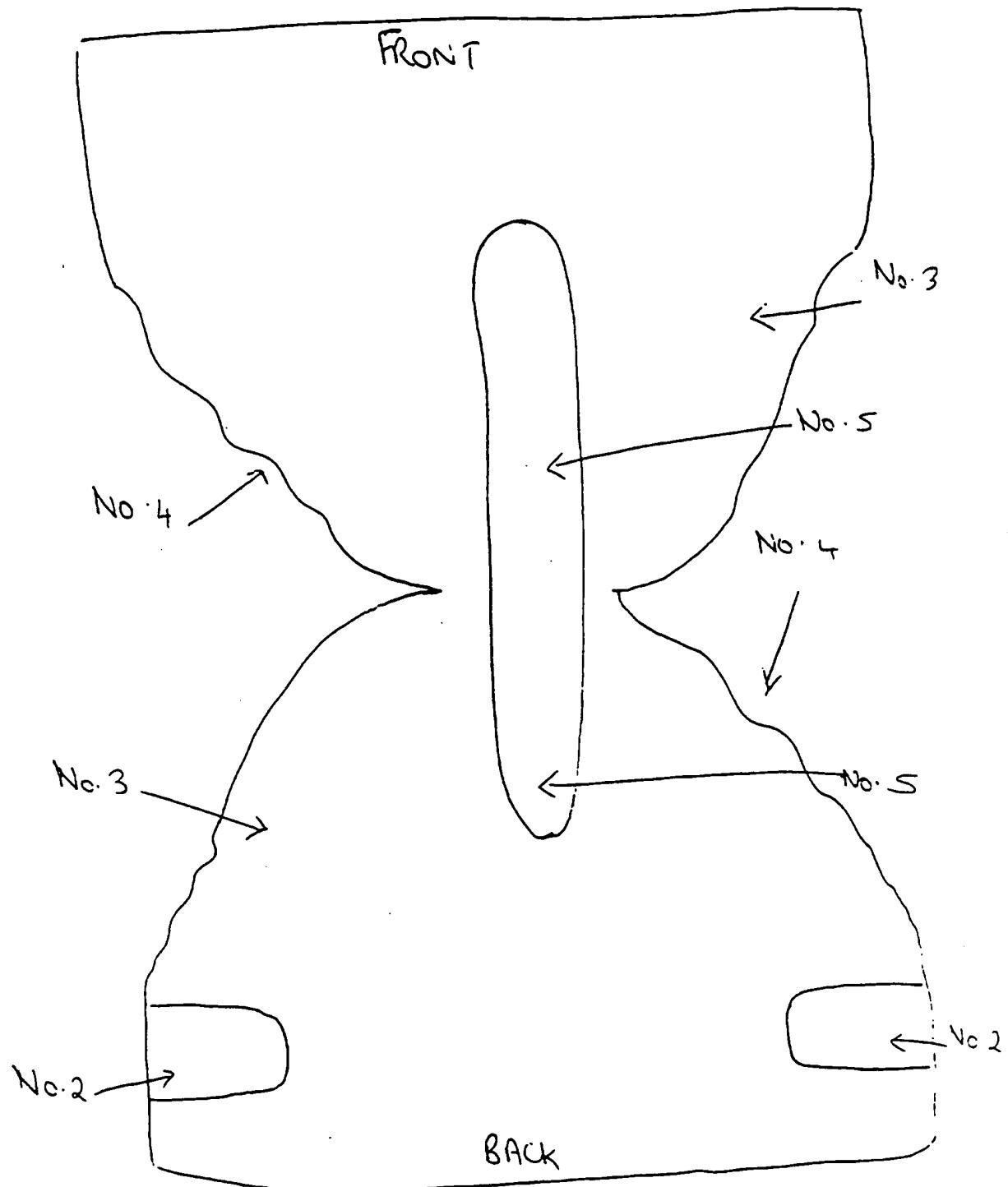
2/3

DRAWINGS [BACK OF REVEAL STRIP DISPOSABLE NAPPY]



3/3

DRAWINGS [INTERIOR OF A REVEAL STRIP DISPOSABLE NAPPY]



REVEAL STRIP DISPOSABLE NAPPY

DESCRIPTION

TECHNICAL FIELD:

THIS INVENTION RELATES TO A *REVEAL STRIP* NAPPY (OF THE DISPOSABLE VARIETY).

BACKGROUND:

DISPOSABLE NAPPIES HAVE BEEN ON THE MARKET FOR DECADES. OVER THE YEARS DISPOSABLE NAPPIES HAVE CHANGED GREATLY IN TERMS OF COMFORT, ABSORBENCY, VISUAL APPEAL, EASE OF USE, BIODEGRADABILITY AND WEIGHT. *REVEAL STRIP* NAPPIES IS A NEW INNOVATION TO TAKE TODAY'S NAPPY INTO THE NEXT MILLENNIUM. AS WELL AS OFFERING ALL THE SPECIFICATIONS OF A TRADITIONAL NAPPY OF TODAY, *REVEAL STRIP* NAPPIES WILL ADD A NEW AND VERY USEFUL FEATURE - NAMELY A MOISTURE-SENSITIVE STRIP OF PAPER (SIMILAR TO LITMUS PAPER) WHICH DARKENS IN GRADUAL SHADES TO PROVIDE AN EXTERNAL VISUAL INDICATION OF THE EXTENT OF SATURATION (FROM URINE OBVIOUSLY) OF THE NAPPY. THE MORE THE BABY WETS THE NAPPY, THE DARKER THE REVEAL STRIP GETS. SO FOR EXAMPLE, A FRESH *REVEAL STRIP* NAPPY MIGHT HAVE A WHITE *REVEAL STRIP* WHICH WHEN SLIGHTLY WET TURNS LIGHT BLUE, THEN MEDIUM BLUE WHEN WET AGAIN AND THEN DARK BLUE WHEN FULLY SATURATED.

THIS STRIP, WHICH REVEALS THE EXTENT TO WHICH THE NAPPY IS WET, WILL BE LOCATED IN THE CENTRE OF THE DISPOSABLE NAPPY, TOP TO BOTTOM (IE TUMMY AREA TO BOTTOM AREA).

NAPPIES WITH THIS STRIP WILL ENABLE THE MOTHER/CARER TO DETERMINE WHETHER BABY'S NAPPY REQUIRES CHANGING WITHOUT HAVING TO PHYSICALLY OPEN THE NAPPY TO MAKE A VISUAL INSPECTION INSIDE NOR HAVING TO TOUCH THE INSIDE OF THE NAPPY TO FEEL FOR THE DEGREE OF WETNESS NOR HAVING TO WAIT FOR BABY TO CRY WITH THE DISPLEASURE OF WEARING A SATURATED NAPPY. THE *REVEAL STRIP* NAPPY WILL ALSO GIVE A CONVENIENT AND IMMEDIATE VISUAL INDICATION OF THE DEGREE OF SATURATION OF THE NAPPY AND THUS LEAD THE MOTHER/CARER TO CHANGE THE NAPPY IMMEDIATELY TO CUT DOWN ON THE LIKELIHOOD OF A WET AND UNHAPPY BABY AND ALSO REDUCE THE LIKELIHOOD OF SKIN IRRITATIONS BROUGHT ABOUT BY URINE CONTACT WITH THE SKIN.

THUS *REVEAL STRIP* NAPPIES WOULD ENSURE COMFORT FOR THE BABY (LESS TIME SPENT IN A WET NAPPY; LESS CHANCE OF NAPPY RASH DUE TO EXPOSURE TO HIS/HER OWN URINE FOR A LONG TIME) AND CONVENIENCE FOR THE MOTHER/CARER (NO NEED FOR BABY TO CRY FOR MOTHER/CARER TO REALISE BABY IS WET; NO NEED TO OPEN THE NAPPY TO VISUALLY/PHYSICALLY LOOK FOR WETNESS; NO NEED TO SMELL FOR URINE, TAKE THE GUESSWORK OUT OF DETECTING WHETHER A NAPPY IS WET) AND ALSO SAVING MONEY (REDUCING THE NUMBER OF TIMES BABY'S NAPPY IS CHANGED PREMATURELY JUST BECAUSE MOTHER/CARER THINKS BABY IS CRYING BECAUSE HE/SHE IS WET).

DESCRIPTION

ESSENTIAL TECHNICAL FEATURES:

THE REVEAL STRIP NAPPY INVENTION USES THE SHAPE, SIZE, DESIGN, MATERIAL AND FEATURES OF A CONVENTIONAL MASS-PRODUCED DISPOSABLE NAPPY BUT WITH THE INSERTION OF A STRIP OF MOISTURE-SENSITIVE PAPER LOCATED IN THE CENTRAL AREA FROM TOP TO BOTTOM TO COVER THE MAIN AREA OF THE NAPPY WHICH IS IN CONTACT WITH THE BABY'S GENITAL AREA.

THE ATTACHED DRAWING ILLUSTRATES THE POSITIONING OF THE REVEAL STRIP WITHIN THE CONVENTIONAL DISPOSABLE NAPPY.

- NO. 1 IS THE STRETCHY OR FIXED WAIST
- NO. 2 IS THE VELCRO/STICKY FASTENER
- NO. 3 IS THE MAIN BODY OF THE NAPPY
- NO. 4 IS THE STRETCHY SIDES
- NO. 5 IS THE REVEAL STRIP

THE REVEAL STRIP, AT THE MANUFACTURING STAGE, WILL BE INSERTED INTO THE SOFT ABSORBENT AREA BUT NOT NECESSARILY BEING IN CONTACT WITH BABY'S SKIN AND VISIBLE JUST UNDER THE WATERPROOF OUTER-ENCASEMENT.

REVEAL STRIP DISPOSABLE NAPPY

CLAIMS

REVEAL STRIP NAPPY CONSISTS OF USING THE ENGINEERING OF A CONVENTIONAL DISPOSABLE NAPPY BUT WITH THE ADDED BONUS OF A CENTRALLY-LOCATED STRIP TO PROVIDE AN EXTERNAL VISUAL INDICATION ENABLING THE MOTHER/CARER TO DETERMINE WHETHER THE NAPPY NEEDS REPLACING WHICH IS INDICATED SIMPLY THE DEGREE OF DARKNESS OF THE REVEAL STRIP - THE DARKER THE SHADE OF THE REVEAL STRIP THE WETTER THE NAPPY.

REVEAL STRIP NAPPIES WOULD NOT REQUIRE MANUFACTURERS TO DRAMATICALLY ALTER THEIR CURRENT MACHINERY TO ADAPT TO THE INSERTION OF A REVEAL STRIP INTO EACH DISPOSABLE NAPPY.



The
Patent
Office

4

Application No: GB 9807377.8
Claims searched: -

Examiner: L.V.Thomas
Date of search: 9 July 1998

Patents Act 1977
Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:
UK CI (Ed.P): A5R (RPV)
Int CI (Ed.6): A61F 13/42

Other: -

Documents considered to be relevant:

Category	Identity of document and relevant passage		Relevant to claims
X	GB 2183160 A	(WILLIAMS) see p.1 ll.48-69 and p.1 l.92 - p.2 l.10	-
X	US 4931051	(CASTELLO) see col.1 l.49 - col.2 l.13 and col.3 ll.3-30	-
X	US 4738674	(TODD ET AL.) see col.1 ll.11-20 and col.3 l.46 - col.4 l.52	-
X	US 4507121	(LEUNG) see col.2 ll.18-62	-
X	US 4327731	(POWELL) see col.2 ll.10-68 and col.3 ll.19-52	-
X	US 3952746	(SUMMERS) see col.1 ll.33-65 and col.2 l.45 - col.3 l.20	-
X	US 3918454	(KORODI ET AL.) see col.2 ll.8-33	-

- | | |
|---|--|
| X Document indicating lack of novelty or inventive step | A Document indicating technological background and/or state of the art. |
| Y Document indicating lack of inventive step if combined with one or more other documents of same category. | P Document published on or after the declared priority date but before the filing date of this invention. |
| & Member of the same patent family | E Patent document published on or after, but with priority date earlier than, the filing date of this application. |

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- BLACK BORDERS**
- IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- FADED TEXT OR DRAWING**
- BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- SKEWED/SLANTED IMAGES**
- COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- GRAY SCALE DOCUMENTS**
- LINES OR MARKS ON ORIGINAL DOCUMENT**
- REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.